TEXARKANA
REGIONAL AIRPORT
AIRPORT MASTER PLAN

TEXARKANA
REGIONAL AIRPORT

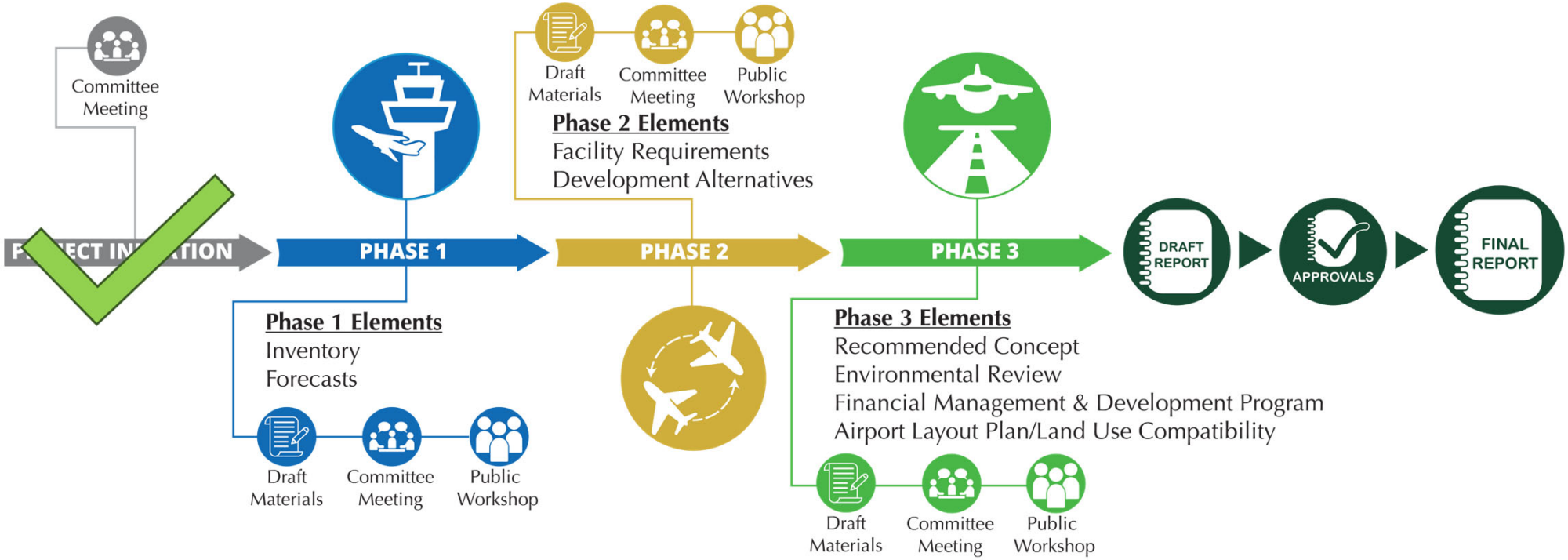
AIRPORT MASTER PLAN
PLANNING ADVISORY COMMITTEE MEETING #2

March 22, 2023

AGENDA

1. Welcome/Introductions
2. Status of the Master Plan
3. Review of Working Papers
   - ✓ Ch1 – Inventory
   - ✓ Ch2 – Forecasts
4. Questions/Comments
5. Next Steps

Master Plan Study Process



Chapter One

Inventory

Figure 1A:

Economic Impact

PRIMARY/DIRECT IMPACTS

On-Airport

Businesses and agencies on system airports generate sales and revenues, hire workers, and pay employees

Off-Airport

Air visitor spending includes lodging, restaurants, car rental, retail items, and entertainment

SECONDARY IMPACTS

Indirect Impacts

Activity by suppliers and vendors who sell to airport businesses, along with jobs created and incomes paid to workers by these suppliers

Induced Impacts

Consumer spending of workers who produced direct or indirect benefits

TOTAL IMPACTS

646 JOBS SUPPORTED

$40.198 MILLION PAYROLL

$88.423 MILLION TOTAL ECONOMIC IMPACT

Source: 2036 Arkansas Statewide Airport System Plan

Exhibit 1E:

Arkansas Airport Objectives – Level 5

Criteria	Objective	Existing	Meets Objective
Runway Length	6,000′	6,601′	✓
Runway Width	100′-150′	150′	✓
Runway Strength	75,000 DW	86,000 DW	✓
Taxiway System	Full-Parallel	Full-Parallel	✓
Runway Lighting	MIRL, HIRL at Commercial Service Airports	HIRL	✓
Taxiway Lighting	MITL	MITL	✓
Approach Capabilities	Precision	Precision	✓
Approach Lighting	ALS	MALSR	✓
Visual Glide Slope Indicator	PAPI/VASI	VASI	✓
Rotating Beacon	Yes	Yes	✓
Segmented Circle	Yes	Yes	✓
Weather Reporting	ASOS/AWOS/AWSS	ASOS	✓
Hangar Storage	42	61	✓
Apron Spaces	13	13	✓
Public Use Space	5,000 sf	7,000 sf	✓
Fuel	Jet A & AvGas	Jet A & AvGas	✓

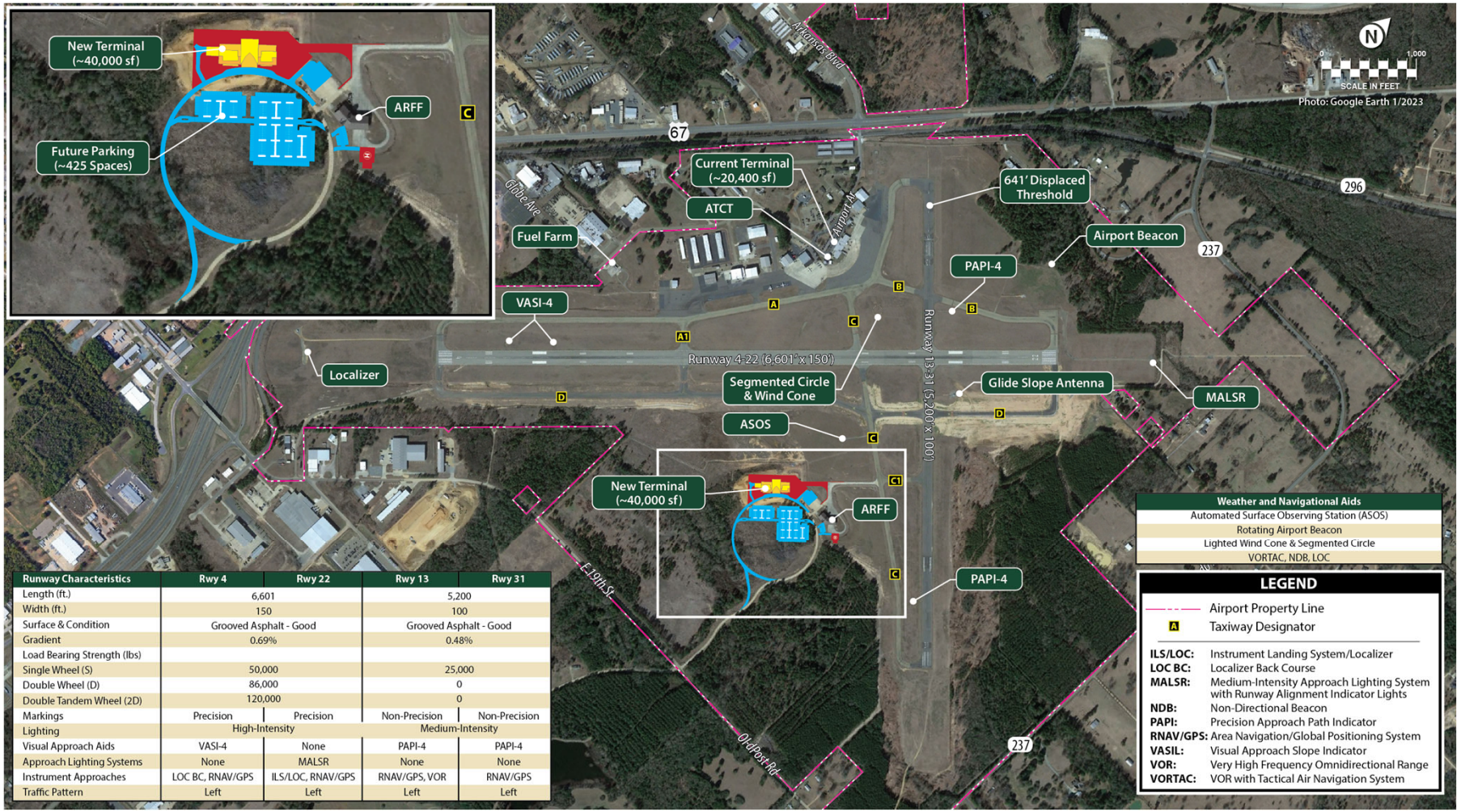
Source: 2036 Arkansas Statewide Airport System Plan

KEY

ALS - Approach Lighting System
ASOS - Automated Surface Observing System
AWOS - Automated Weather Observing System
AWSS - Automated Weather Sensor System
DW: - Dual-Wheel Loading
HIRL - High-Intensity Runway Lighting
MALSR - Medium-Intensity ALS with Runway Alignment Indicator Lights
MIRL - Medium-Intensity Runway Lighting
MITL - Medium-Intensity Taxiway Lighting
PAPI - Precision Approach Path Indicator
VASI - Visual Approach Slope Indicator
sf - Square Feet

Exhibit 1F:

Airside Facilities



Runway Characteristics	Rwy 4	Rwy 22	Rwy 13	Rwy 31
Length (ft.)	6,601		5,200	
Width (ft.)	150		100	
Surface & Condition	Grooved Asphalt - Good		Grooved Asphalt - Good	
Gradient	0.69%		0.48%	
Load Bearing Strength (lbs)				
Single Wheel (S)	50,000		25,000	
Double Wheel (D)	86,000		0	
Double Tandem Wheel (2D)	120,000		0	
Markings	Precision	Precision	Non-Precision	Non-Precision
Lighting	High-Intensity		Medium-Intensity	
Visual Approach Aids	VASI-4	None	PAPI-4	PAPI-4
Approach Lighting Systems	None	MALSR	None	None
Instrument Approaches	LOC BC, RNAV/GPS	ILS/LOC, RNAV/GPS	RNAV/GPS, VOR	RNAV/GPS
Traffic Pattern	Left	Left	Left	Left

Weather and Navigational Aids
Automated Surface Observing Station (ASOS)
Rotating Airport Beacon
Lighted Wind Cone & Segmented Circle
VORTAC, NDB, LOC

LEGEND

Airport Property Line

A Taxiway Designator

ILS/LOC: Instrument Landing System/Localizer
LOC BC: Localizer Back Course
MALSR: Medium-Intensity Approach Lighting System with Runway Alignment Indicator Lights
NDB: Non-Directional Beacon
PAPI: Precision Approach Path Indicator
RNAV/GPS: Area Navigation/Global Positioning System
VASIL: Visual Approach Slope Indicator
VOR: Very High Frequency Omnidirectional Range
VORTAC: VOR with Tactical Air Navigation System

Exhibit 1G:

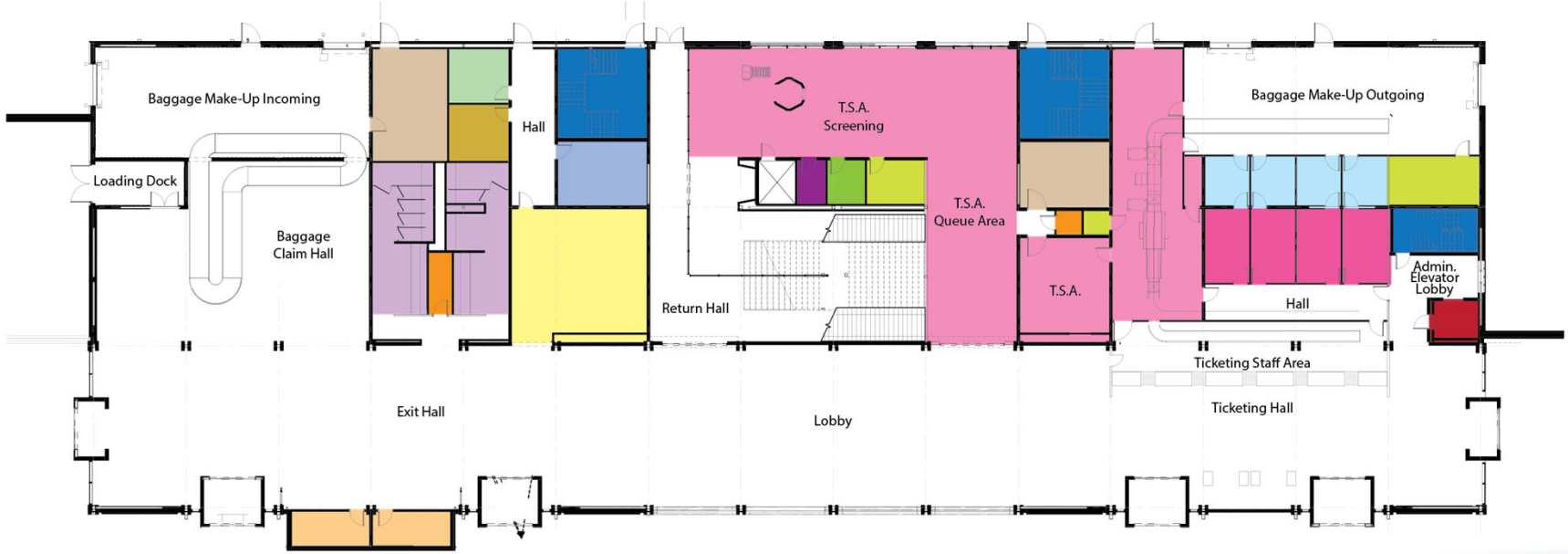
Landside Facilities

#	Type	Size (sf)
1	Conventional Hangar	12,400
2	Conventional Hangar	8,500
3	Airport Administration	4,100
4	Commercial Terminal	20,400
5	Electrical Vault	1,490
6	Airport Traffic Control Tower	1,350
7	Conventional Hangar & FBO Terminal	10,100
8	Conventional Hangar	10,600
9	Conventional Hangar	10,300
10	Conventional Hangar	12,100
11	Conventional Hangar	11,700
12	Conventional Hangar	12,100
13	Conventional Hangar	4,100
14	Trailer	1,200
15	T-Hangars (7-unit)	13,900
16	T-Hangars (12-unit)	13,900
17	T-Hangars (12-unit)	13,900
18	T-Hangars (12-unit)	14,200
19	Conventional Hangar	12,100
20	Conventional Hangar	23,600

Exhibit 1H:

New Airport Terminal

FIRST LEVEL



LEGEND	
Mechanical	Screen Monitor
Electrical	Janitor
Data	Storage
Restrooms	T.S.A.
Concessions	Manager Office
Airport Security	Work Space
Egress Stair	Elevator
Private Screen	Car Rental Office

Exhibit 1H:

New Airport Terminal

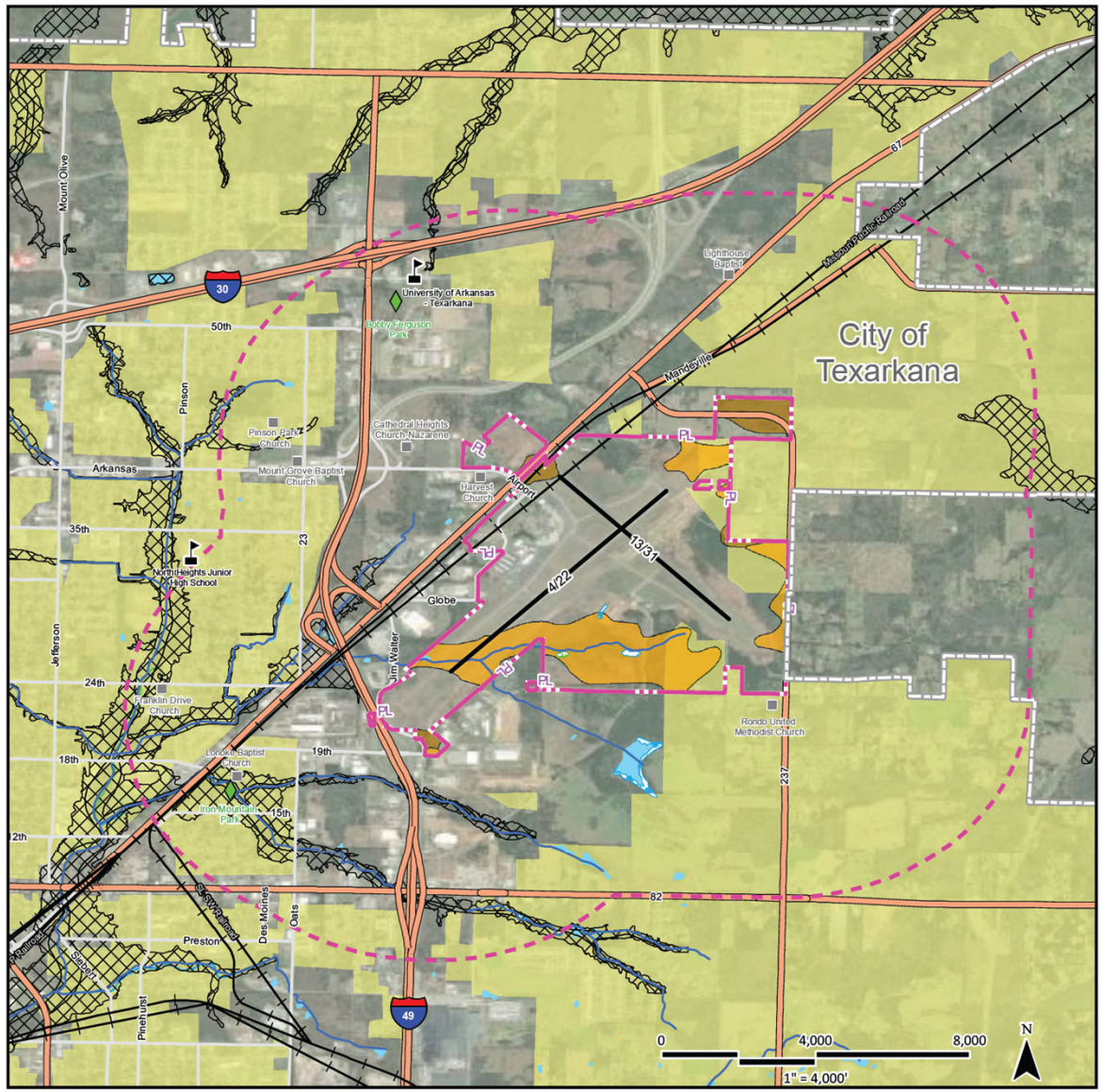
SECOND LEVEL

LEGEND

Restrooms	Janitor
Conference Room	Storage
Kitchen	Office
Reception Desk	Elevator
Copy Room	

Exhibit 1L:

Environmental Sensitivities



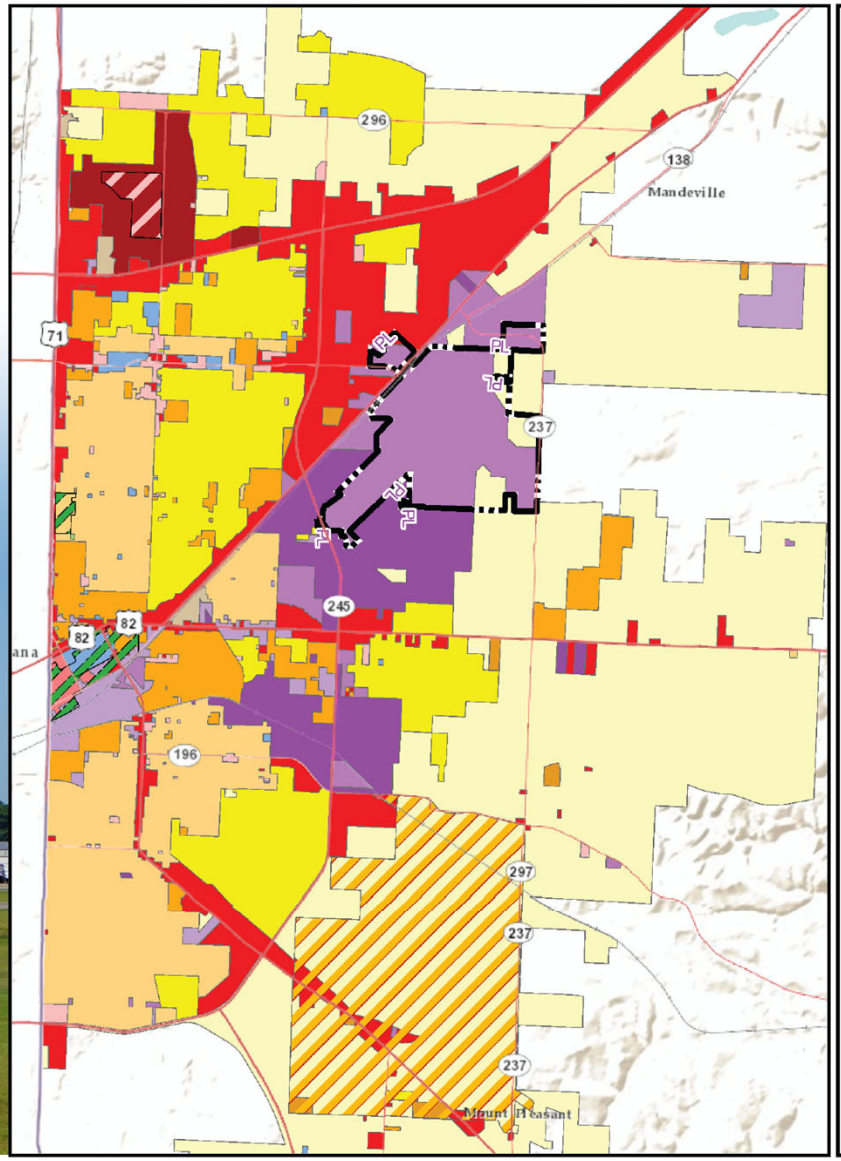
- Airport Property Boundary
- 1-Mile Airport Buffer
- Runway Centerline
- Municipal Boundary
- Schools
- Parks
- Churches
- Stream/Drainage
- 100-Year Flood Plan
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Lake/Pond
- Residential Land Use

Farmland Classification

- Prime Farmland
- Farmland of Statewide Importance

Exhibit 1M:

Zoning Map



Chapter Two

Forecasts

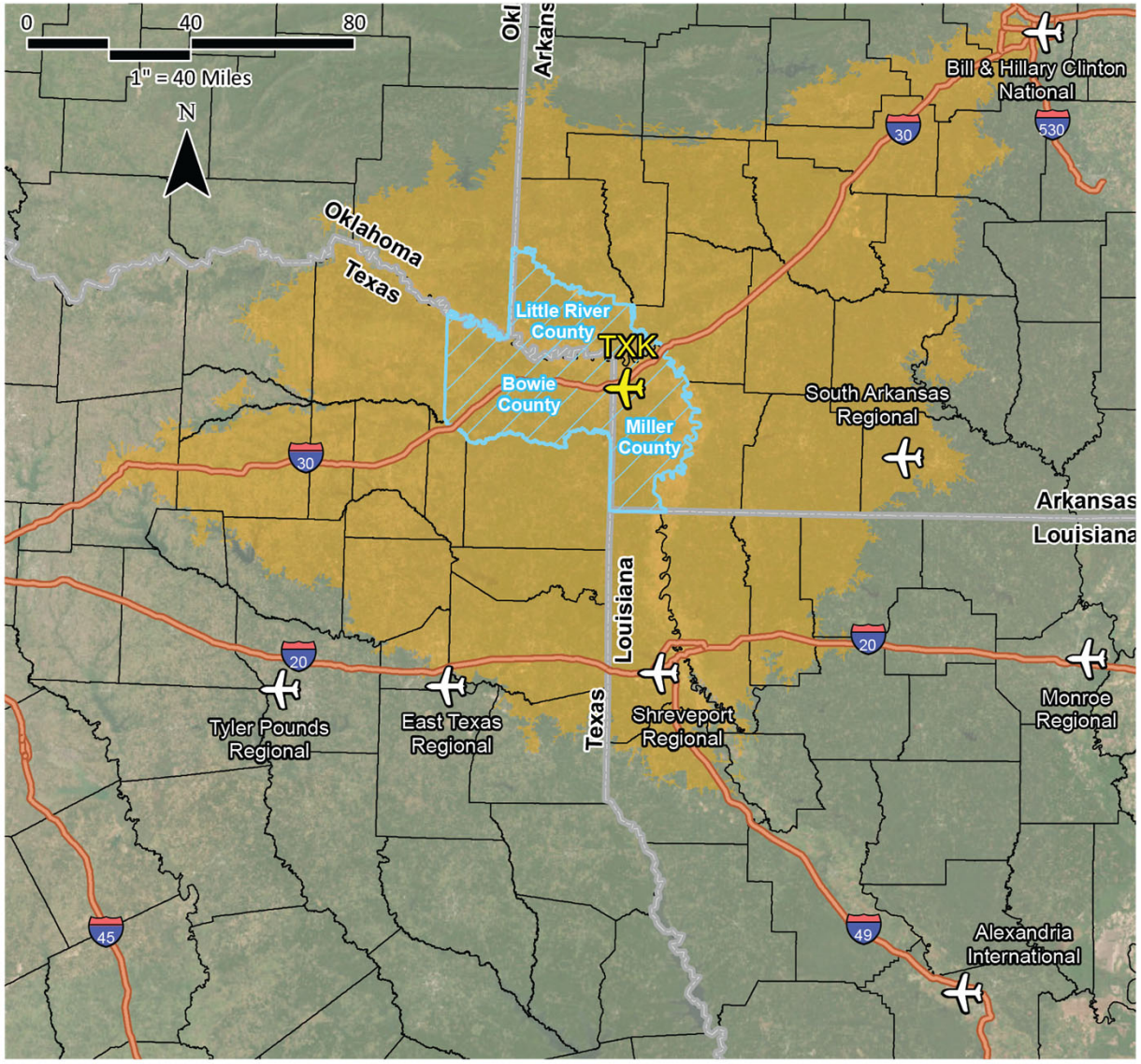


Exhibit 2A:

Commercial Passenger Service Area

LEGEND

- Texarkana Regional Airport
- Commercial Service Airport
- Interstate Highway
- Texarkana MSA
- State Boundary
- County Boundary
- Two-Hour Drive Time

Table 2B:

Primary Commercial Airports

Rank	Location	Airport	CY 2021 Enplanements	% of Enplanements	Drive Distance from TXK (mi)
1	Dallas-Fort Worth, TX	Dallas-Fort Worth International	30,005,266	77.9%	197
2	Dallas, TX	Dallas Love Field	6,487,563	16.8%	189
3	Little Rock, AR	Bill and Hillary Clinton National	827,922	2.1%	141
4	Bentonville, AR	Northwest Arkansas National	598,787	1.6%	261
5	Shreveport, LA	Shreveport Regional	246,772	0.6%	80
6	Alexandria, LA	Alexandria International	144,218	0.4%	199
7	Monroe, LA	Monroe Regional	84,693	0.2%	162
8	Fort Smith, AR	Fort Smith Regional	45,369	0.1%	181
9	Tyler, TX	Tyler Pounds Regional	39,943	0.1%	130
10	**Texarkana, AR**	**Texarkana Regional**	**26,888**	**0.1%**	**---**
11	Longview, TX	East Texas Regional	23,942	0.1%	106

Table 2C:

Competing Airports

Airport	CY 2021 Enplanements	Airlines	Daily Departures	Non-Stop Destination	2021 Avg. One-Way Ticket	2021 Avg. Yield	Drive Time from TXK
DFW	30,605,266	28	600+	258	$215.50	$0.234	3h
DAL	6,487,563	3	130+	71	$169.92	$0.214	3h
LIT	827,922	6	20+	17	$209.28	$0.228	2h
SHV	246,772	4	10+	7-9	$252.91	$0.267	1h 10m
TXK	26,888	1	2-3	1	$256.89	$0.278	---

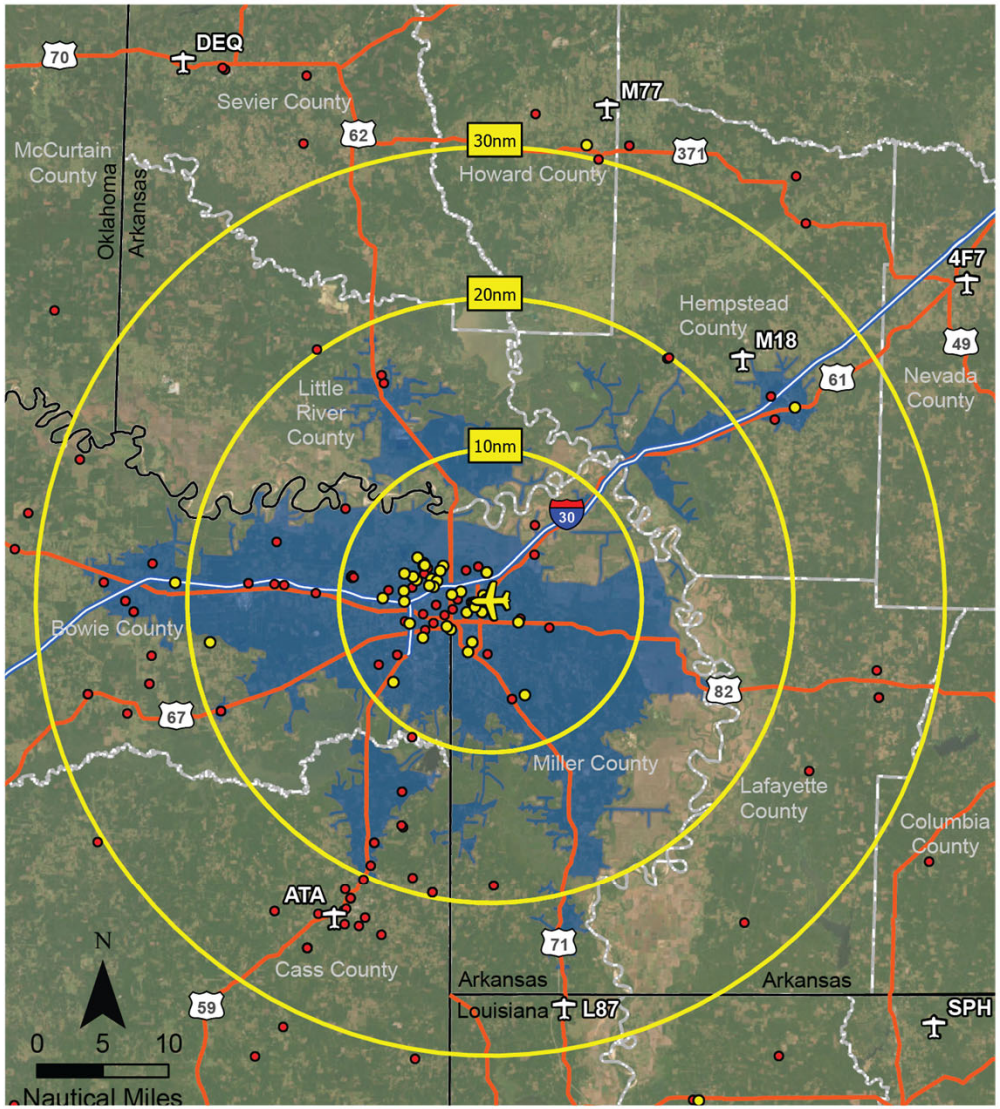


Exhibit 2B:

Based Aircraft Service Area

LEGEND

- TXK Based Aircraft
- FAA Registered Aircraft
- NPIAS Airport
- Texarkana Regional Airport-Webb Field
- County Boundary
- State Boundary
- 30-Minute Drive Time

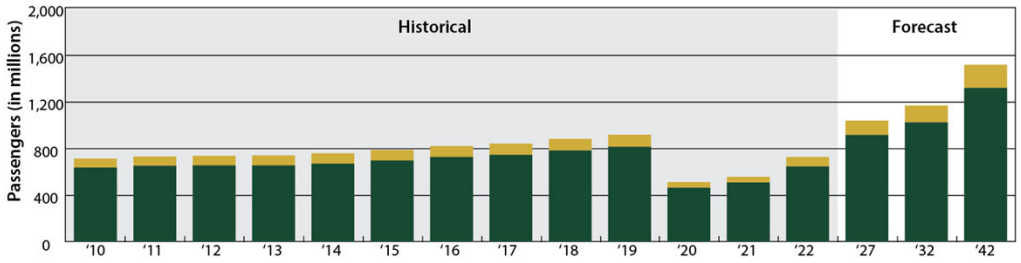
Based & Registered Aircraft Counts		
Distance From TXK	**Based Aircraft Count**	**FAA Registered Aircraft Count**
0 - 10nm	40	84
10 - 20nm	1	35
20 - 30nm	2	55
Total	*43**	*174*

*20 Based aircraft registered to addresses beyond 30nm from TXK

Exhibit 2C:

US Commercial Air Carrier Forecasts

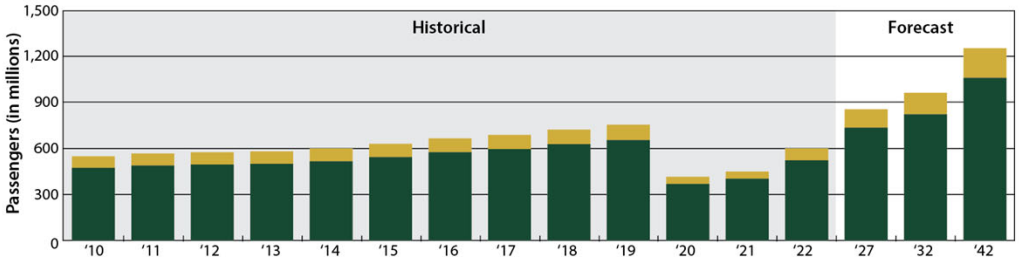
U.S. AIR CARRIER PASSENGER ENPLANEMENTS



SOURCE	2022	2027	2032	2042	CAGR 2022-2042
Domestic Revenue Enplanements	645	914	1,022	1,318	3.64%
International Revenue Enplanements	81	123	145	198	4.57%
TOTAL	726	1,037	1,167	1,516	3.75%

Note: All figures measured in millions

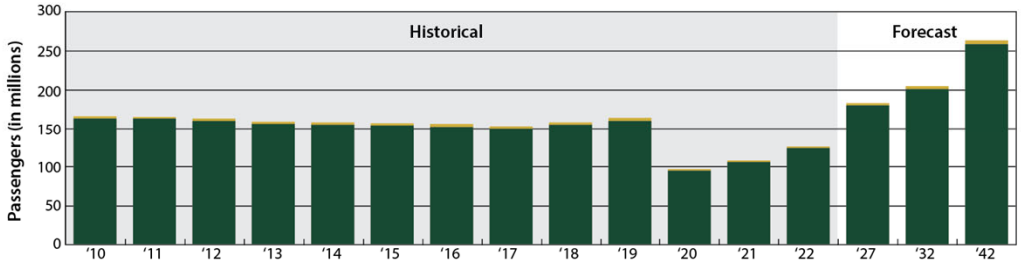
U.S. MAINLINE AIR CARRIER PASSENGER ENPLANEMENTS



SOURCE	2022	2027	2032	2042	CAGR 2022-2042
Domestic Revenue Enplanements	522	735	822	1,060	3.61%
International Revenue Enplanements	78	120	141	193	4.63%
TOTAL	601	855	963	1,254	3.75%

Note: All figures measured in millions

U.S. REGIONAL AIR CARRIER PASSENGER ENPLANEMENTS



SOURCE	2022	2027	2032	2042	CAGR 2022-2042
Domestic Revenue Enplanements	123	179	200	258	3.77%
International Revenue Enplanements	2	3	4	5	4.69%
TOTAL	125	182	203	262	3.77%

Note: All figures measured in millions. Totals may not equal due to rounding
CAGR: Compound Annual Growth Rate
Source: FAA Aerospace Forecast - Fiscal Years 2022-2042

Exhibit 2D:

US Commercial Fleet Forecasts

U.S. MAINLINE AIR CARRIER PASSENGER JET AIRCRAFT

	2022	2027	2032	2042	CAGR 2022-2042
Large Narrow Body					
2 Engine	3,429	3,463	3,765	4,748	1.6%
3-4 Engines	0	0	0	0	0.0%
Large Wide Body					
2 Engine	426	503	589	784	3.1%
3-4 Engines	0	0	0	0	0.0%
Total Large Jets	3,855	3,966	4,354	5,532	1.8%
Total Regional Jets	60	0	0	0	-100.0%
Total Mainline Passenger Jets	3,915	3,966	4,354	5,532	1.7%

U.S. REGIONAL AIR CARRIER PASSENGER AIRCRAFT

	2022	2027	2032	2042	CAGR 2022-2042
Non-Jet					
Less than 30 Seats	342	288	233	133	-4.6%
31-40 Seats	3	0	0	0	-100.0%
Over 40 Seats	49	53	60	75	2.2%
Total Non-Jets	394	341	293	208	-3.1%
Jet					
31-40 Seats	3	2	0	0	-100.0%
Over 40 Seats	1,623	1,550	1,530	1,979	1.0%
Total Jets	1,626	1,552	1,530	1,979	1.0%
Total Regional Passenger Aircraft	2,020	1,893	1,823	2,187	0.4%

Total Mainline Passenger Jets

Total Regional Passenger Aircraft

Source: FAA Aerospace Forecast - Fiscal Years 2022-2041

Figure 2A:

Historical Enplanements

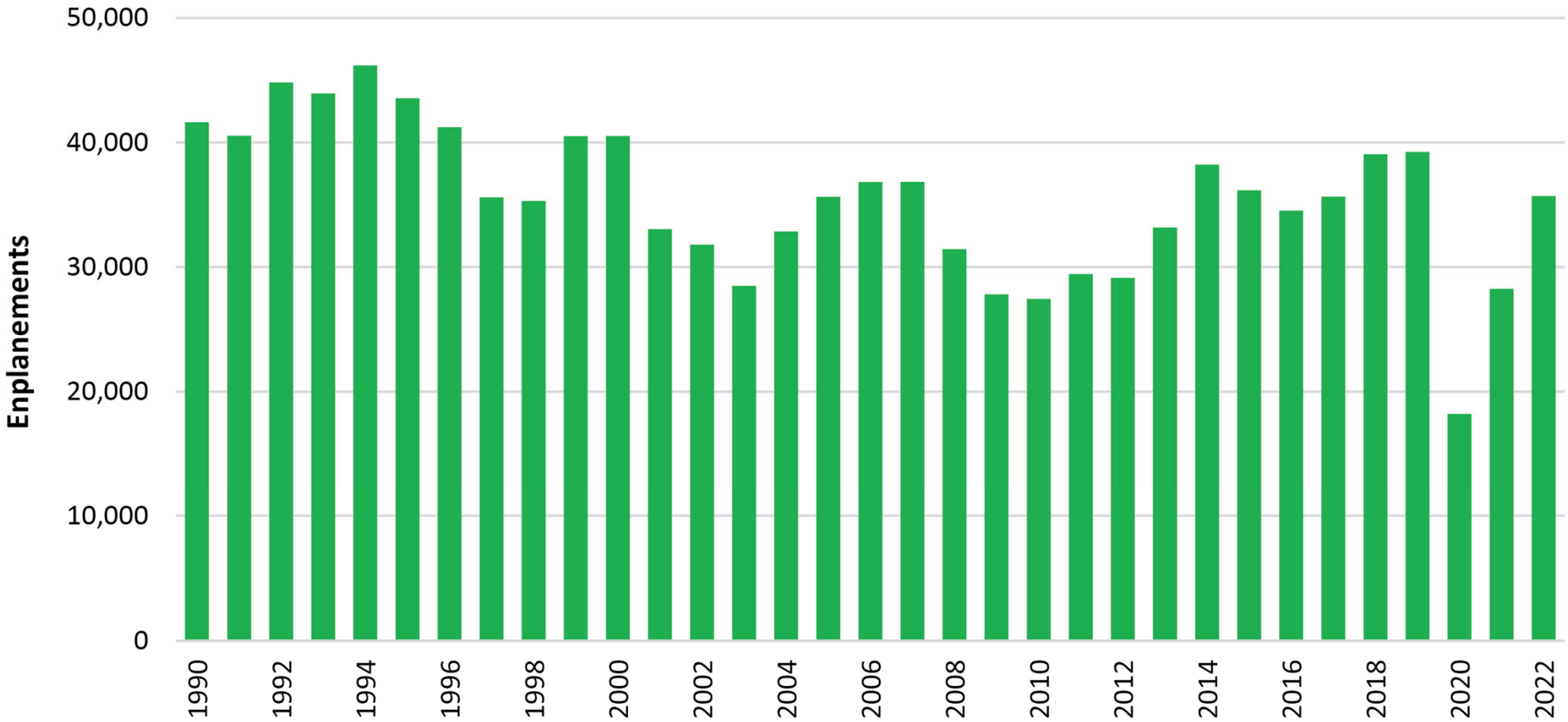


Exhibit 2E:

Top Twenty Destinations

	2012 Top Twenty Markets		2017 Top Twenty Markets		2021-2022 Top Twenty Markets	
Rank	Destination	Passengers	Destination	Passengers	Destination	Passengers
1	Dallas/Fort Worth	3,280	Los Angeles	3,840	Los Angeles	4,330
2	Los Angeles	2,850	Dallas/Fort Worth	2,990	Orlando	2,490
3	Washington DC	2,610	Washington DC	2,120	Las Vegas	2,270
4	New York City	2,010	Chicago	1,940	Houston	2,150
5	San Francisco	1,640	Orlando	1,940	Washington DC	2,130
6	San Antonio	1,630	San Francisco	1,680	Denver	1,990
7	Chicago	1,580	Atlanta	1,650	Dallas/Fort Worth	1,750
8	Las Vegas	1,440	Denver	1,640	Phoenix	1,680
9	Atlanta	1,270	Charlotte	1,590	New York City	1,650
10	Detroit	1,270	Las Vegas	1,580	San Antonio	1,610
11	Indianapolis	1,140	San Antonio	1,530	San Francisco	1,590
12	Columbus, OH	1,130	Miami	1,510	Miami	1,490
13	Austin	1,120	New York City	1,500	Atlanta	1,380
14	Phoenix	1,110	Phoenix	1,470	San Diego	1,360
15	Boston	1,090	Detroit	1,380	Tampa	1,310
16	Denver	1,030	Philadelphia	1,370	Chicago	1,290
17	Seattle	1,000	Tampa	1,290	Austin	1,270
18	Orlando	950	Austin	1,190	Seattle	1,220
19	San Diego	940	Houston	1,190	Salt Lake City	990
20	Philadelphia	940	Seattle	1,140	Charlotte	990
	Top 20 Total O&D Passengers	**30,030**	**Top 20 Total O&D Passengers**	**34,540**	**Top 20 Total O&D Passengers**	**34,940**
	Total O&D Passengers	**55,080**	**Total O&D Passengers**	**66,930**	**Total O&D Passengers**	**66,550**
	% Top 20/Total O&D Passengers	**54.5%**	**% Top 20/Total O&D Passengers**	**51.6%**	**% Top 20/Total O&D Passengers**	**52.5%**

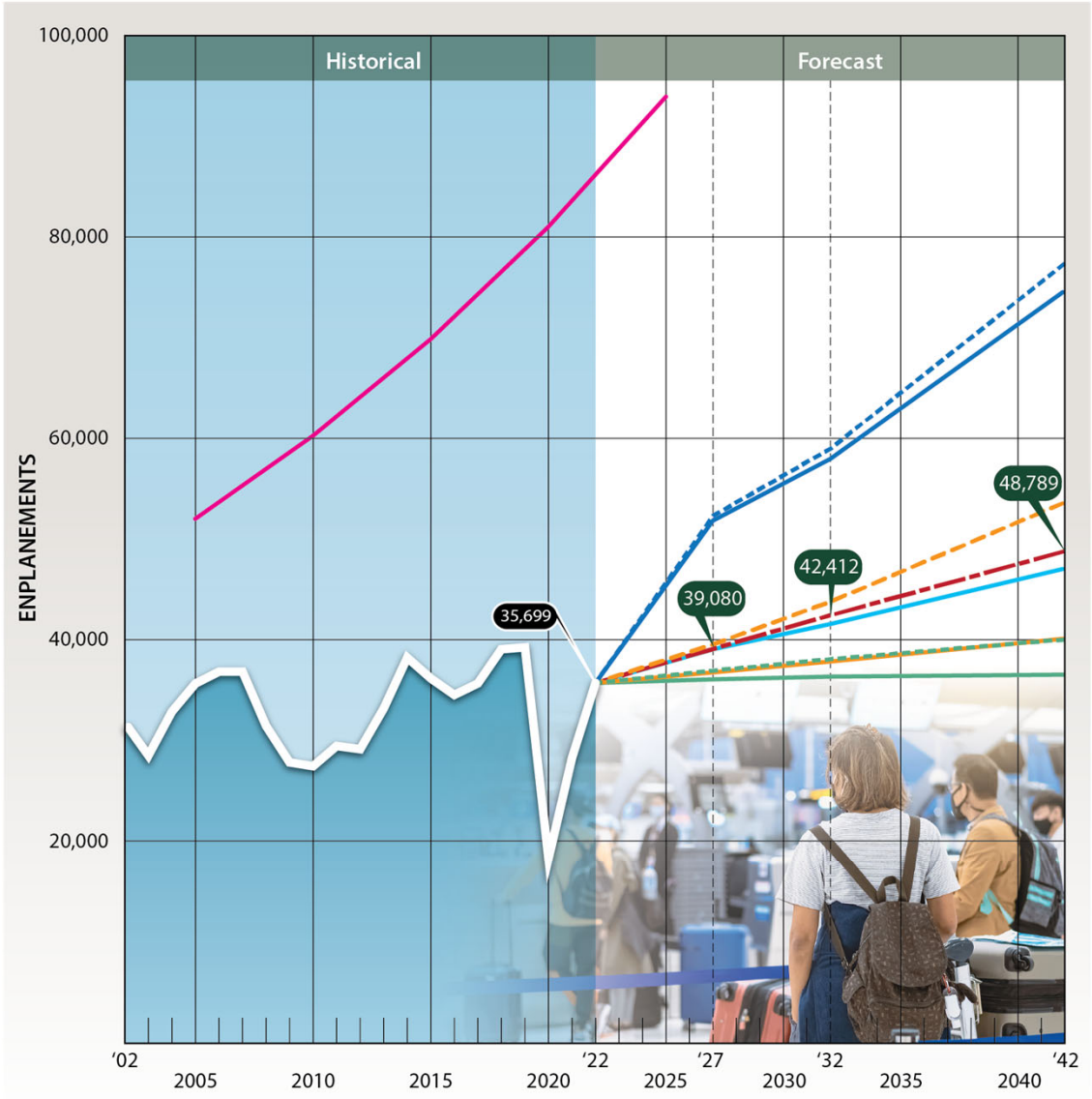


Exhibit 2F:

Enplanement Forecasts

LEGEND

Travel Propensity Factord (TPF) Projections	**CAGR**
Constant TPF	0.12%
Increasing TPF - Peak Ratio	0.57%
Increasing TPF - Maximum Change (Selected)	*1.57%*
Market Share of Regional Airline Projections	
Constant Market Share	3.76%
Increasing Market Share	3.94%
Historic Trend Projections	**CAGR**
10-Year Growth Rate	2.06%
20-Year Growth Rate	0.58%
Other Forecasts	
2023 TXK TAF	1.48%
2003 Master Plan	

Table 2J:

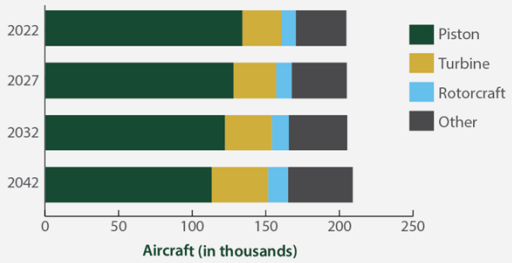
Airline Fleet Mix/Operations

Fleet Mix - Seating Capacity/Example Aircraft	ACTUAL					FORECAST		
	2018	2019	2020	2021	2022	2027	2032	2042
100+/B737, A319	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
66-100/CRJ-900, ERJ-175	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	35.0%
61-65/CRJ-700	0.3%	0.0%	0.0%	0.0%	15.3%	100.0%	75.0%	65.0%
50-60/ERJ-145, CRJ-200	79.2%	8.7%	17.8%	79.6%	82.9%	0.0%	0.0%	0.0%
30-49/ERJ-135, -140	20.5%	91.3%	82.2%	20.4%	1.7%	0.0%	0.0%	0.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Total Seats Available	53,851	54,048	34,275	51,323	59,441	62,010	65,243	69,676
Avg. Seats per Departure	45.25	44.19	44.92	48.83	51.24	65.00	67.75	68.85
Boarding Load Factor	72.5%	72.6%	53.1%	55.0%	60.1%	63.0%	65.0%	70.0%
Enplaned per Departure	32.82	32.08	23.87	26.88	30.78	40.95	44.04	48.20
Annual Enplanements	39,051	39,239	18,215	28,250	35,699	39,080	42,412	48,789
Annual Departures	1,190	1,223	763	1,051	1,160	954	963	1,012
Annual Operations	2,380	2,446	1,526	2,102	2,320	1,908	1,926	2,024
Air Carrier Ops (≥60 seats)	0	0	0	0	386	1,908	1,926	2,024
Commuter/AT Ops (<60 seats)	2,380	2,446	1,526	2,102	1,934	0	0	0

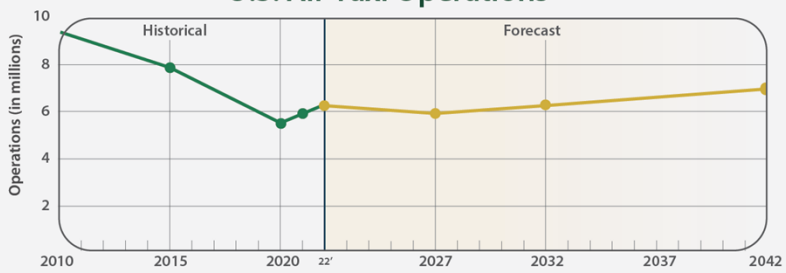
Exhibit 2G:

U.S. General Aviation/Air Taxi Forecasts

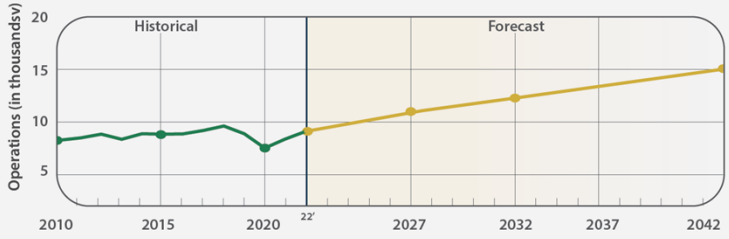
U.S. Active General Aviation Aircraft



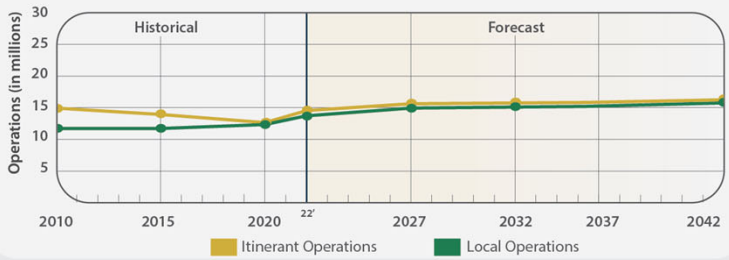
U.S. Air Taxi Operations



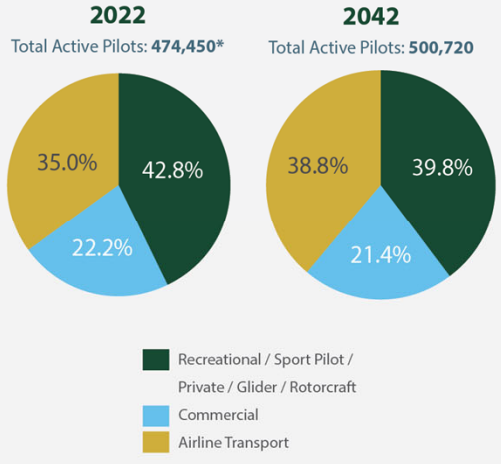
Active General Avaition & Air Taxi Hours Flown



U.S. General Aviation Operations



Active Pilots By Certificate



*Excludes Student Pilot Certificates

Source: FAA Aerospace Forecasts FY2022-2042

Exhibit 2H:

Registered Aircraft Forecasts

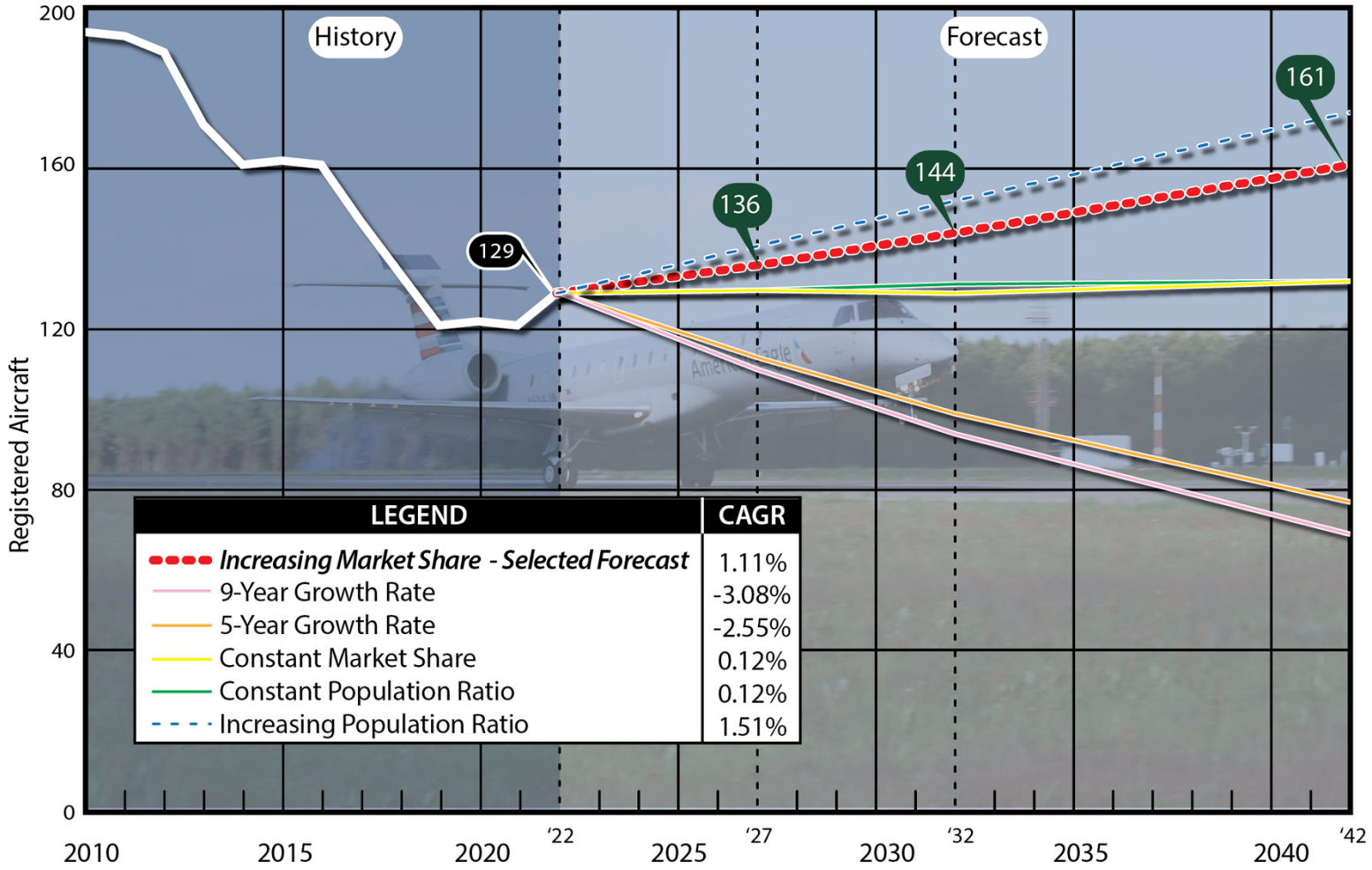


Exhibit 2H:

Based Aircraft Forecasts

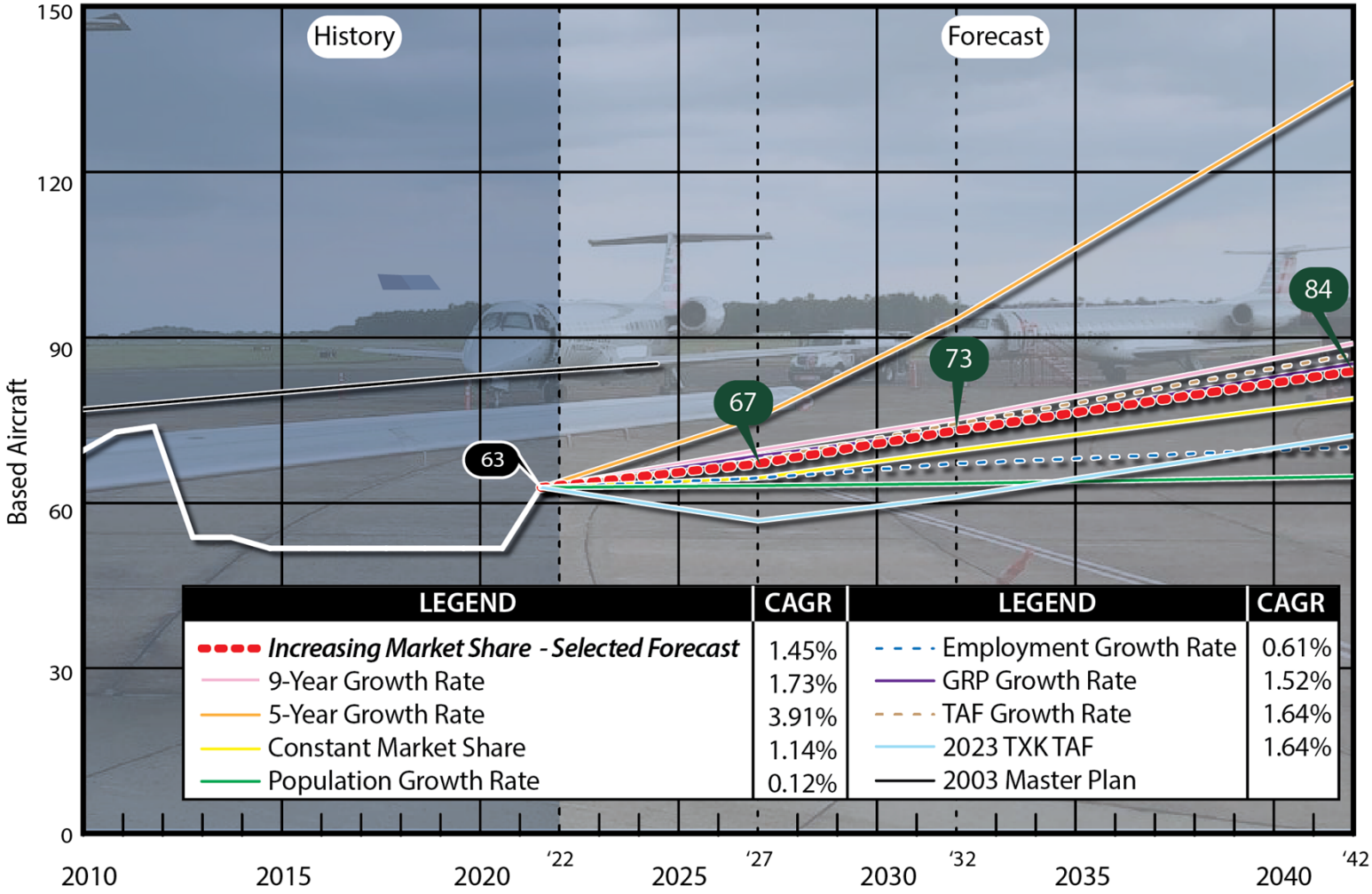


Exhibit 2J:

Itinerant General Aviation Operations Forecasts

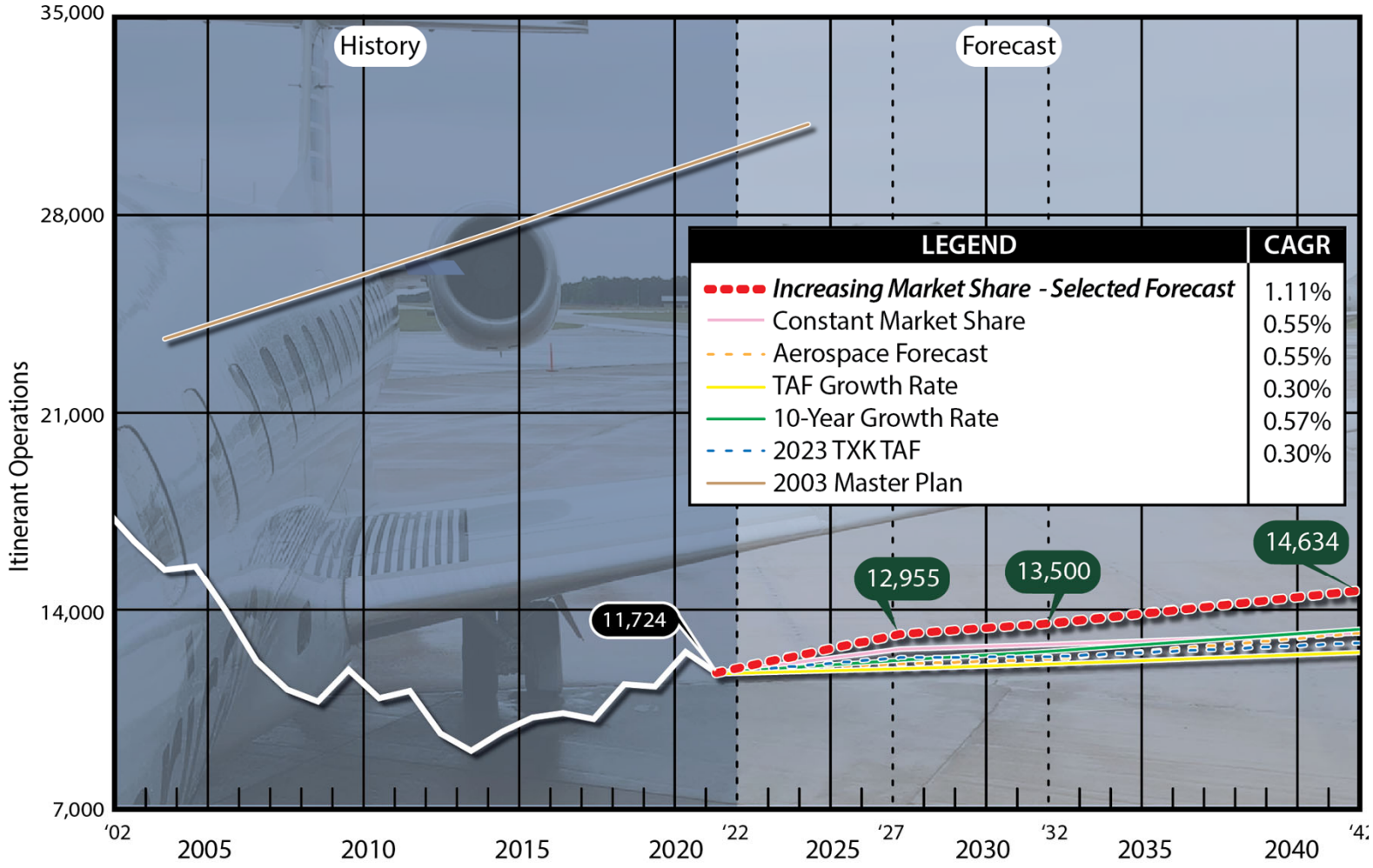


Exhibit 2J:

Local General Aviation Operations Forecasts

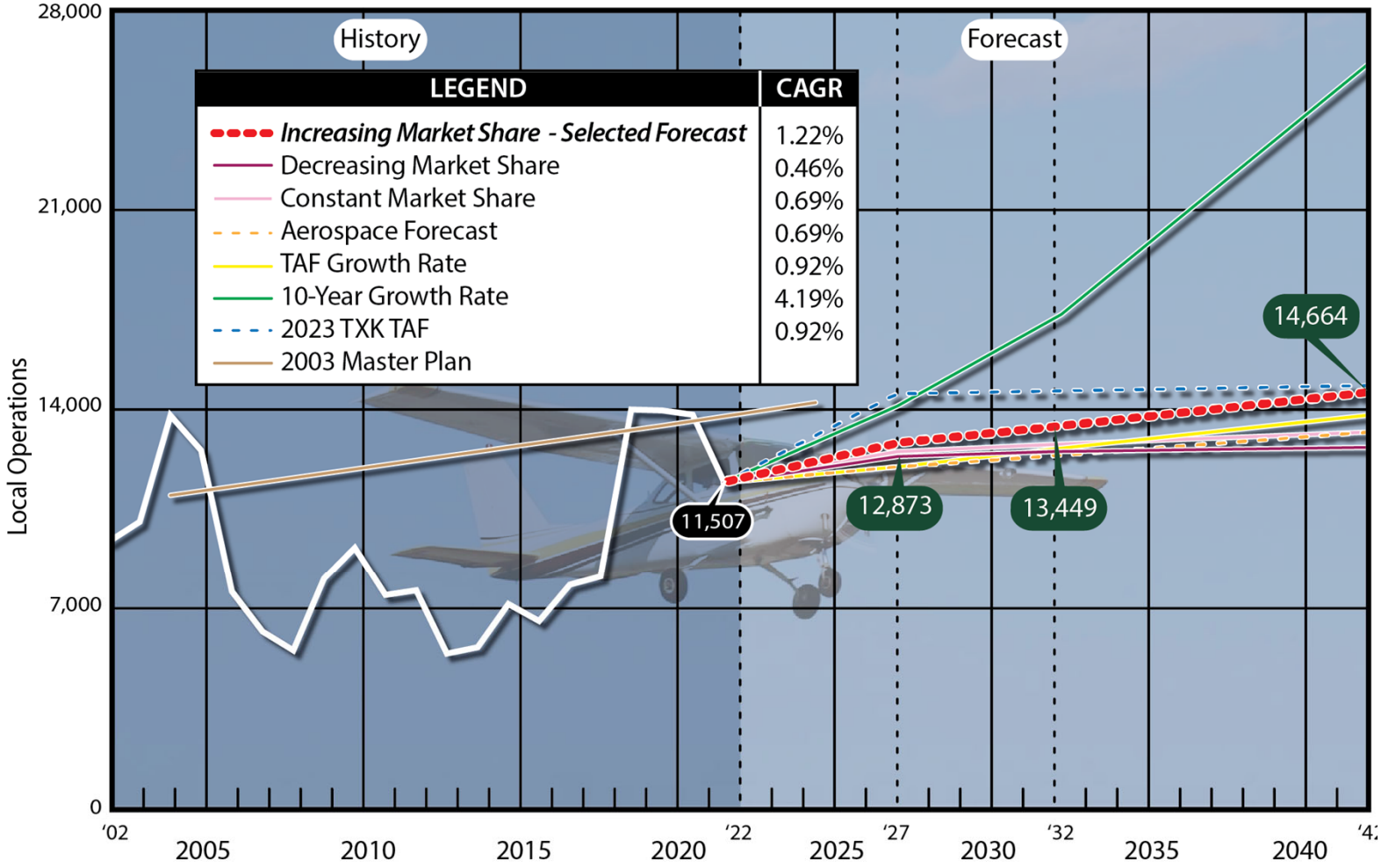


Exhibit 2K:

Forecast Summary

	Base Year	Forecast			CAGR
	2022	2027	2032	2042	
ENPLANEMENTS	35,699	39,080	42,412	48,789	1.57%
ANNUAL OPERATIONS					
Itinerant					
Air Carrier	386	1,983	2,001	2,099	8.84%
Air Taxi	5,361	3,583	3,746	4,094	-1.34%
General Aviation	11,724	12,955	13,500	14,634	1.11%
Military	841	841	841	841	0.00%
Total Itinerant Operations	***18,312***	***19,362***	***20,088***	***21,668***	***0.84%***
Local					
General Aviation	11,507	12,873	13,449	14,664	1.22%
Military	926	926	926	926	0.00%
Total Local Operations	***12,433***	***13,799***	***14,375***	***15,590***	***1.14%***
Total Annual Operations	***30,745***	***33,161***	***34,463***	***37,258***	***0.97%***

CAGR: Compound Annual Growth Rate

Exhibit 2K:

Forecast Summary

	2022	2027	2032	2042
PEAKING				
Enplanements				
Peak Month	3,570	3,908	4,241	4,879
Design Day	115	126	137	157
Design Hour	39	41	88	96
Annual Operations				
Peak Month	3,159	3,407	3,541	3,828
Design Day	106	112	116	126
Busy Day	187	198	205	223
Design Hour	6	6	6	7
FLEET MIX				
Single Engine Piston	33	34	35	38
Multi-Engine Piston	8	7	5	3
Turboprop	6	8	11	16
Jet	12	13	16	20
Helicopter	4	5	6	7
Based Aircraft	***63***	***67***	***73***	***84***

Exhibit 2L:

Aircraft Classification Parameters

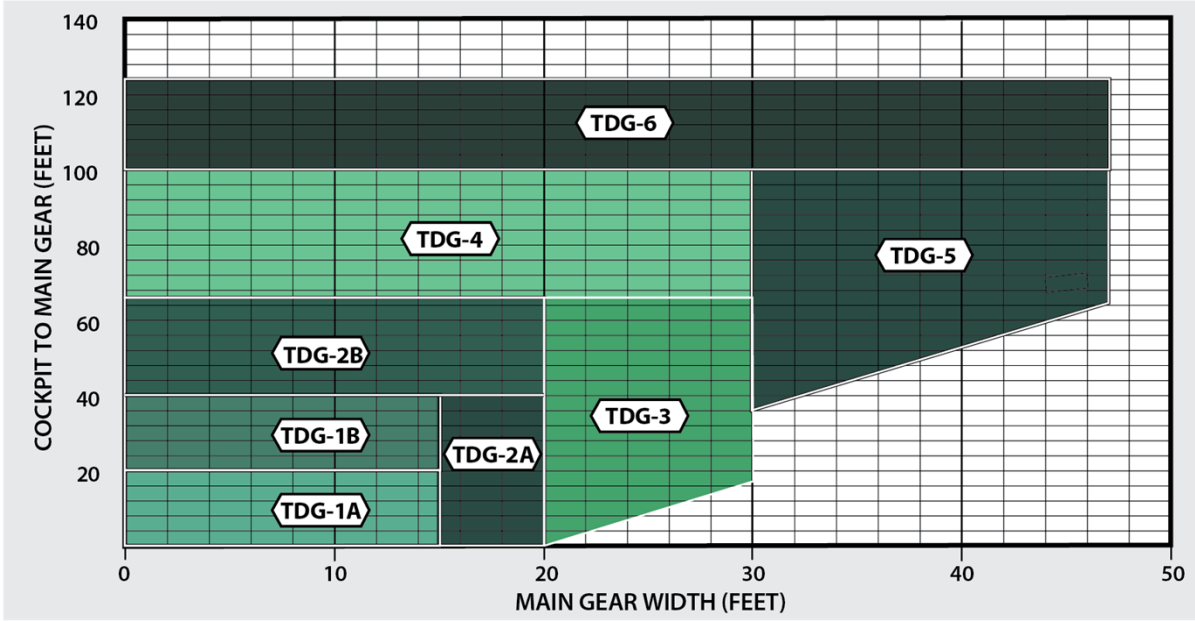
AIRCRAFT APPROACH CATEGORY (AAC)	
Category	**Approach Speed**
A	less than 91 knots
B	91 knots or more but less than 121 knots
C	121 knots or more but less than 141 knots
D	141 knots or more but less than 166 knots
E	166 knots or more

AIRPLANE DESIGN GROUP (ADG)		
Group #	**Tail Height (ft)**	**Wingspan (ft)**
I	<20	<49
II	20-<30	49-<79
III	30-<45	79-<118
IV	45-<60	118-<171
V	60-<66	171-<214
VI	66-<80	214-<262

VISIBILITY MINIMUMS	
RVR* (ft)	**Flight Visibility Category (statute miles)**
VIS	3-mile or greater visibility minimums
5,000	Not lower than 1-mile
4,000	Lower than 1-mile but not lower than ¾-mile
2,400	Lower than ¾-mile but not lower than ½-mile
1,600	Lower than ½-mile but not lower than ¼-mile
1,200	Lower than ¼-mile

***RVR:** Runway Visual Range

TAXIWAY DESIGN GROUP (TDG)



Source: FAA AC 150/5300-13B, Airport Design

Exhibit 2M:

Aircraft Reference Codes

A-I

Aircraft	TDG
• Beech Baron 55	1A
• **Beech Bonanza**	**1A**
• Cessna 150, 172	1A
• Eclipse 500	1A
• Piper Archer, Seneca	1A

B-I

Aircraft	TDG
• **Beech Baron 58**	**1A**
• Beech King Air 90	1A
• Cessna 421	1A
• Cessna Citation CJ1 (525)	1A
• Cessna Citation 1(500)	2A
• Embraer Phenom 100	1B

A/B-II *12,500 lbs. or less*

Aircraft	TDG
• **Beech Super King Air 200**	**2A**
• Cessna 441 Conquest	1A
• Cessna Citation CJ2 (525A)	2A
• Pilatus PC-12	1A

B-II *over 12,500 lbs.*

Aircraft	TDG
• Beech Super King Air 350	2A
• Cessna Citation CJ3(525B), V (560)	2A
• Cessna Citation Bravo (550)	1A
• **Cessna Citation CJ4 (525C)**	**1B**
• Cessna Citation Latitude/Longitude	1B
• Embraer Phenom 300	1B
• Falcon 10, 20, 50	1B
• Falcon 900, 2000	2A
• Hawker 800, 800XP, 850XP, 4000	1B
• Pilatus PC-24	1B

A/B-III

Aircraft	TDG
• Bombardier Dash 8	3
• **Bombardier Global 5000**, 6000, 7000, 8000	**2B**
• Falcon 6X, 7X, 8X	2B

C/D-I

Aircraft	TDG
• **Lear** 25, 31, 45, 55, **60**	**1B**
• Learjet 35, 36 (D-I)	1B

C/D-II

Aircraft	TDG
• Challenger 600/604/ 800/850	1B
• Cessna Citation VII, X+	1B
• Embraer Legacy 450/500	1B
• **Gulfstream IV,** 350, 450 (D-II)	2A
• Gulfstream G200/G280	1B
• Lear 70, 75	1B

C/D-III *less than 150,000 lbs.*

Aircraft	TDG
• Gulfstream V	2A
• **Gulfstream** G500, 550, 600, **650 (D-III)**	**2B**

C/D-III *over 150,000 lbs.*

Aircraft	TDG
• Airbus A319-100, 200	3
• **Boeing 737 -800,** 900, BBJ2 (D-III)	**3**
• MD-83, 88 (D-III)	4

C/D-IV

Aircraft	TDG
• Airbus A300-100, 200, 600	5
• Boeing 757-200	4
• **Boeing 767**-300, **400**	**5**
• MD-11	6

D-V

Aircraft	TDG
• Airbus A330-200, 300	5
• Airbus A340-500, 600	6
• Boeing 747-100 - 400	5
• Boeing 777-300	6
• **Boeing 787-8,** 9	**5**

Exhibit 2N:

Historical Jet and Turboprop Operations

AIRPORT REFERENCE CODE (ARC) SUMMARY

ARC CODE	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
A-I	54	72	96	82	124	192	198	280	298	486	468
A-II	44	52	170	252	178	170	92	68	54	122	140
A-III	0	0	2	0	0	0	0	0	0	0	0
B-I	1,322	1,228	1,058	1,060	1,108	928	1,248	1,372	820	1,052	1,050
B-II	1,912	1,806	1,430	1,586	1,712	1,732	1,580	1,732	1,290	1,866	2,150
B-III	56	2	14	20	8	10	4	22	14	34	20
C-I	158	184	84	224	270	230	278	258	206	168	232
C-II	2,578	2,748	2,464	2,500	2,452	2,388	2,926	2,878	1,850	2,540	2,920
C-III	6	4	2	2	4	0	0	26	6	18	18
C-IV	146	146	164	84	134	80	80	62	96	52	18
C-V	0	0	2	0	0	0	0	0	0	0	0
D-I	22	28	20	16	20	26	6	8	10	6	16
D-II	6	8	8	44	110	102	90	94	84	120	80
D-III	14	8	6	6	10	12	6	20	22	24	86
D-IV	2	6	0	0	0	0	0	0	0	0	0
E-I	0	0	0	2	0	0	0	0	0	0	0
Total	**6,320**	**6,292**	**5,520**	**5,878**	**6,130**	**5,870**	**6,508**	**6,820**	**4,750**	**6,488**	**7,198**

Exhibit 2N:

Historical Jet and Turboprop Operations

APPROACH CATEGORY

AC	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
A	98	124	268	334	302	362	290	348	352	608	608
B	3,290	3,036	2,502	2,666	2,828	2,670	2,832	3,126	2,124	2,952	3,220
C	2,888	3,082	2,716	2,810	2,860	2,698	3,284	3,224	2,158	2,778	3,188
D	44	50	34	66	140	140	102	122	116	150	182
E	0	0	0	2	0	0	0	0	0	0	0
Total	**6,320**	**6,292**	**5,520**	**5,878**	**6,130**	**5,870**	**6,508**	**6,820**	**4,750**	**6,488**	**7,198**

DESIGN GROUP

DG	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
I	1,556	1,512	1,258	1,384	1,522	1,376	1,730	1,918	1,334	1,712	1,766
II	4,540	4,614	4,072	4,382	4,452	4,392	4,688	4,772	3,278	4,648	5,290
III	76	14	24	28	22	22	10	68	42	76	124
IV	148	152	164	84	134	80	80	62	96	52	18
V	0	0	2	0	0	0	0	0	0	0	0
Total	**6,320**	**6,292**	**5,520**	**5,878**	**6,130**	**5,870**	**6,508**	**6,820**	**4,750**	**6,488**	**7,198**

Table 2AD:

Runway Design Parameters

Runway	Critical Design Aircraft	RDC	APRC	DPRC	TDG
Existing Conditions					
4-22	CRJ-700	C-II-2400	D/IV/2400 D/V/2400	D/IV D/V	2B
13-31	Citation Excel/XLS	B-II-5000	B/III/4000 D/II/4000	B/III D/II	2B
Future Conditions					
4-22	ERJ-175	C-III-2400	D/IV/2400 D/V/2400	D/IV D/V	3
13-31	Citation Excel/XLS	B-II-4000	B/III/4000 D/II/4000	B/III D/II	2B

Critical Design Aircraft

Existing Commercial

Bombardier CRJ-700

Seats: 63-70 (65)

Ultimate Commercial

Embraer ERJ-175

Seats: 76-80

Existing/Ultimate GA

Cessna Citation Excel/XLS

Seats: 6-8

Images courtesy of flightaware.com

TEXARKANA
REGIONAL AIRPORT

TXK Air Cargo Forecasts – Background

- Due to the overall lack of consistent historical air cargo data at TXK, air cargo forecasts were developed using a Scenario-based Approach
- Requires definition of specific cargo-related scenarios at TXK that are deemed to be possible at the Airport during the forecast period
- This approach to air cargo forecasting has been accepted and approved by the FAA for numerous other airport Master Plans – especially given the current dynamic environment of the air cargo industry
- For purposes of the Master Plan, three air cargo forecast scenarios were considered:
  - FedEx entry in 2025
  - General cargo freighter entry in 2025
  - Amazon Air entry in 2029
- These scenarios are not necessarily meant to be additive, but rather are meant to cover the range of cargo air services currently operating in the U.S.

Source: Hubpoint analysis

TEXARKANA
REGIONAL AIRPORT

TXK Air Cargo Forecasts

Major Assumptions for Defined Scenarios

FedEx Scenario

- Assume FedEx flights with 10x per week operations at TXK (5 arrivals & 5 departures)
- In 2025, start with Cessna 208B & upgauge in 2031 to the larger Cessna C408 SkyCourier
- Aircraft tonnage capacities adjusted for FedEx lower density shipments
- Startup years have accelerated growth for new TXK market, then taper for consistency to Boeing long-terms forecasts
- Validate assumptions with FedEx feeder flights at AFW hub

General Cargo Freighter Scenario

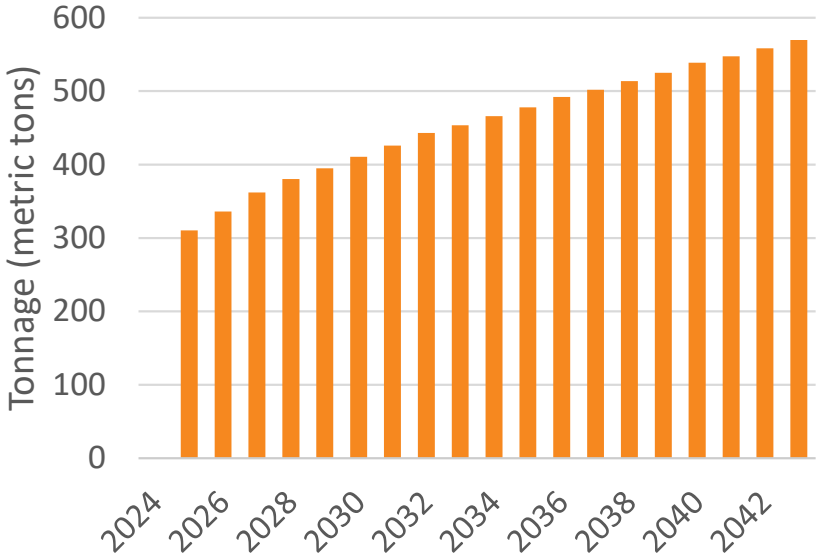
- Scenario depends on new auto manufacturer or similar industrial activity starting near TXK
- Assume B757-200F operation at TXK which will increase weekly frequencies over the forecast period
- Freighter has multi-stop itineraries with only part of a/c allocated to each airport
- 8 flights (2025); 16 flights (2026)
- 4x weekly ops (2027); 3x weekly ops (2029); 4x weekly ops (2035)
- TXK a/c allocation range: 20%- 50%

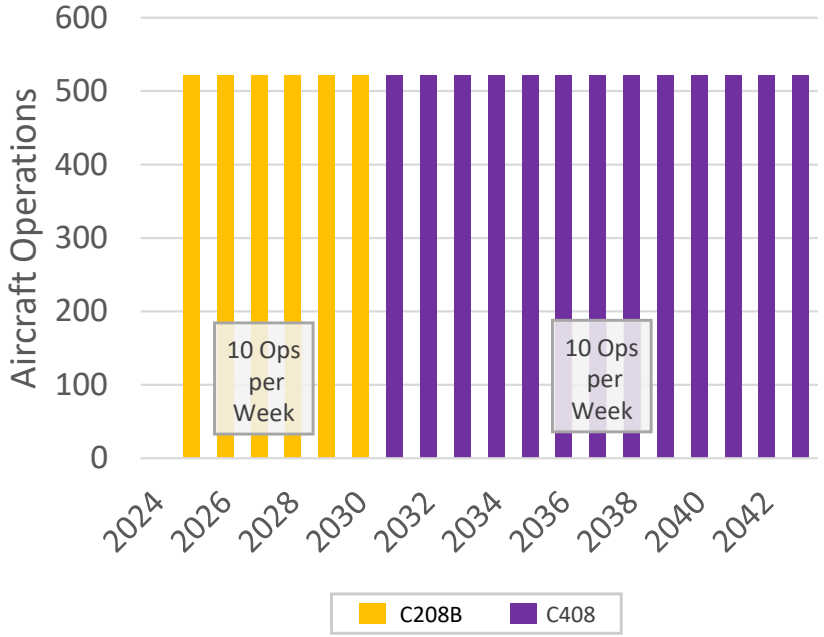
Amazon Air Scenario

- Scenario depends on presence of a large Amazon fulfillment center near TXK
- 2029 startup with ATR-72F at 6x weekly ops service to AFW hub,
- Expect increase to 12x weekly ops with ATR; then eventually upgauge to B737F at 6x weekly service ops
- Tonnage growth occurs at accelerated pace compared to Boeing forecast
- Payload capacity for the ATR-72F is based on analysis Amazon Air's current operations of the aircraft in the U.S.

Source: Hubpoint analysis

FedEx Scenario – Forecast Tonnage and Aircraft Operations



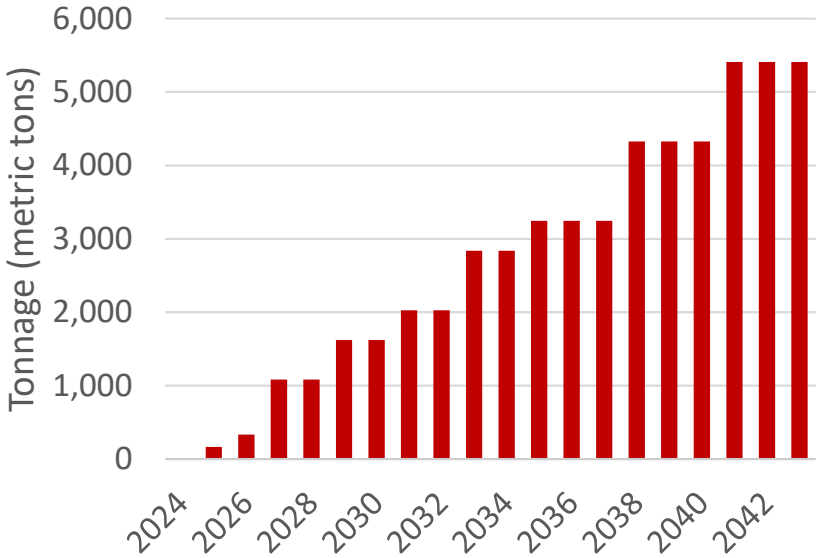


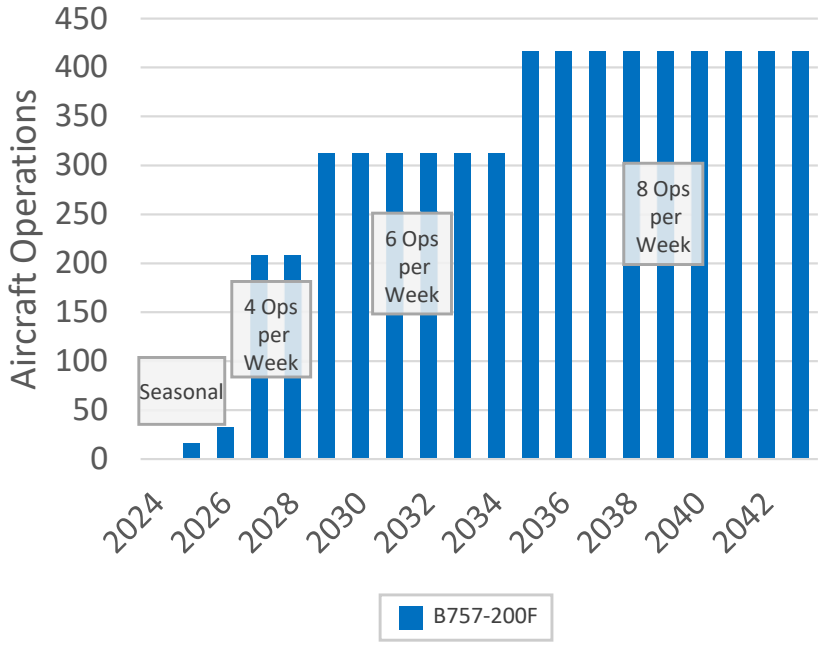
	Forecast					CAGR
	2025	2030	2035	2040	2043	(2025-2043)
Air Cargo (metric tons)	310	411	478	539	569	3.4%

	Aircraft Operations	
	2025-2030	2031-2043
C208B	522	0
C408	0	522

Source: Hubpoint analysis

General Cargo Freighter Scenario – Forecast Tonnage and Aircraft Operations



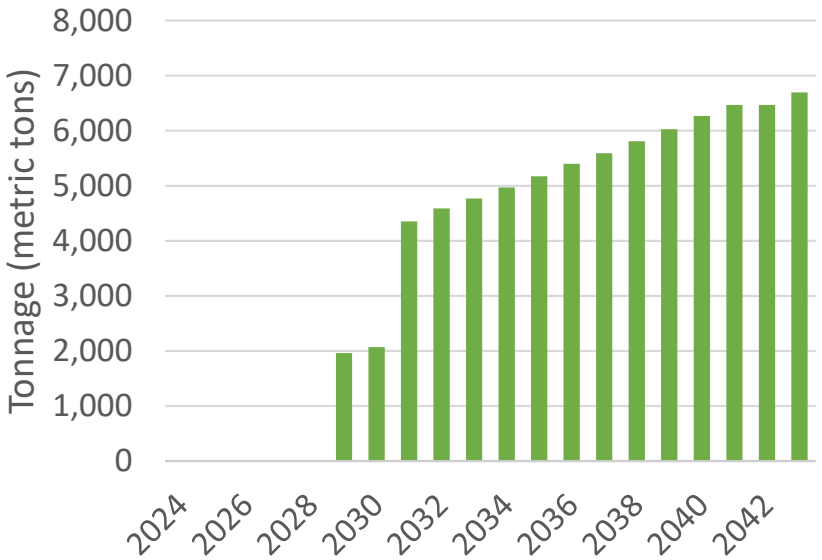


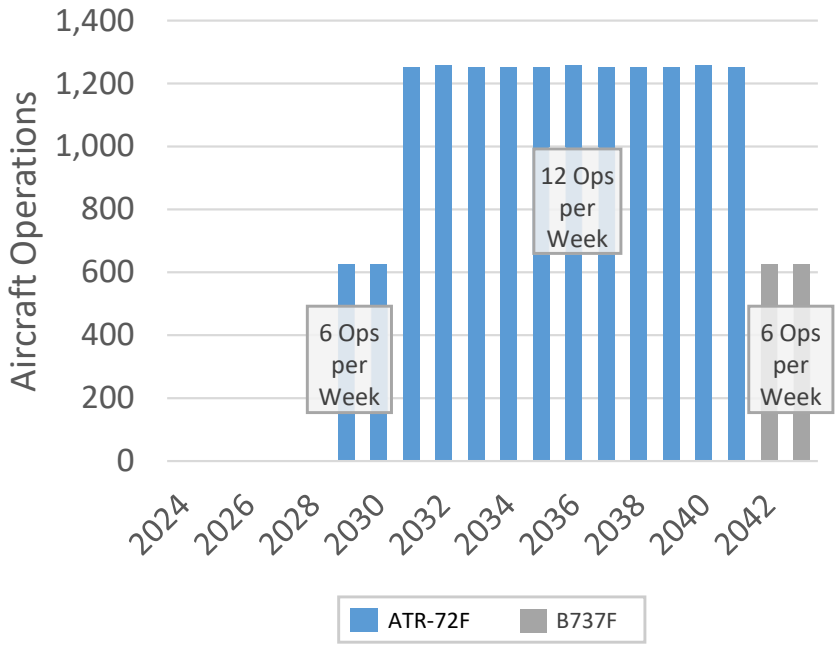
	Forecast					CAGR
	2025	2030	2035	2040	2043	(2025-2043)
Air Cargo (metric tons)	166	1,622	3,245	4,326	5,408	10.6%

	Aircraft Operations		
	2027-2028	2029-2034	2035-2043
B757-200F	208	312	416

Source: Hubpoint analysis

Amazon Air Scenario – Forecast Tonnage and Aircraft Operations





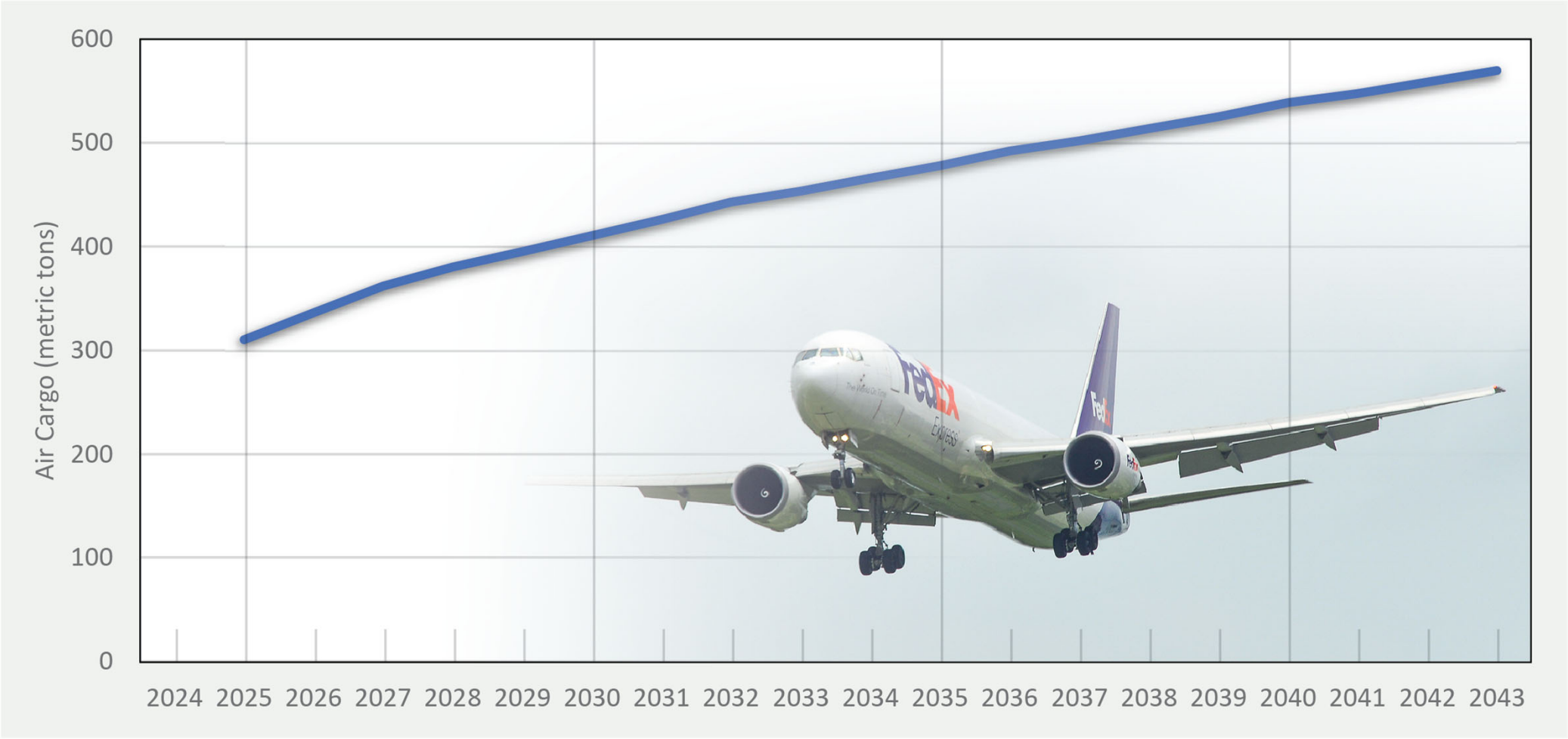
	Forecast			CAGR
	2029	2036	2043	(2029-2043)
Air Cargo (metric tons)	1,961	5,400	6,693	9.2%

	Aircraft Operations		
	2029-2030	2031-2041	2042-2043
ATR-72F	626	1,256	0
B737-800F	0	0	626

Source: Hubpoint analysis

Figure 2B:

FedEx Air Cargo Forecast



Source: Hubpoint analysis

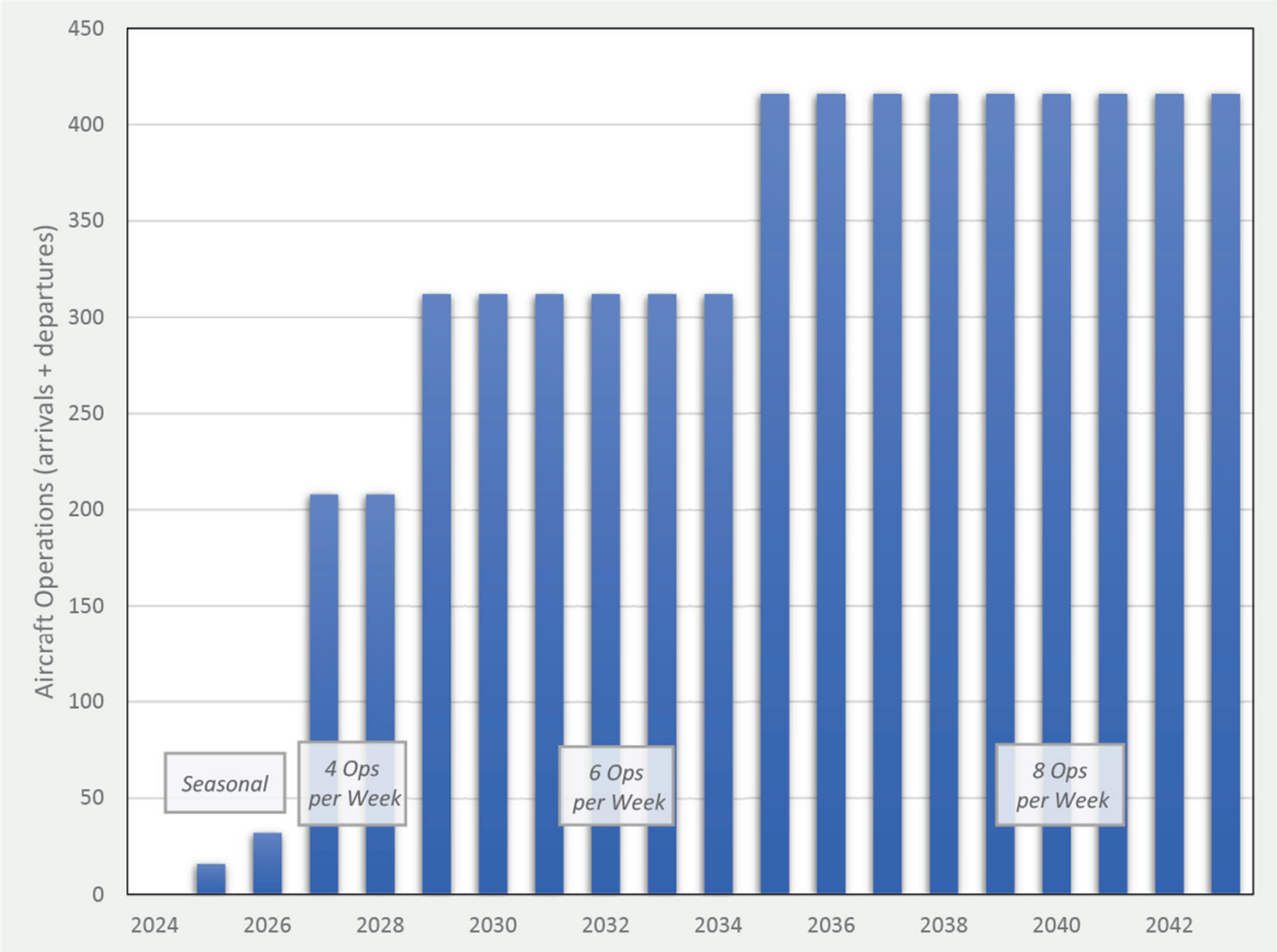
Figure 2D:

General Freighter Air Cargo Forecast

Source: Hubpoint analysis

Figure 2E:

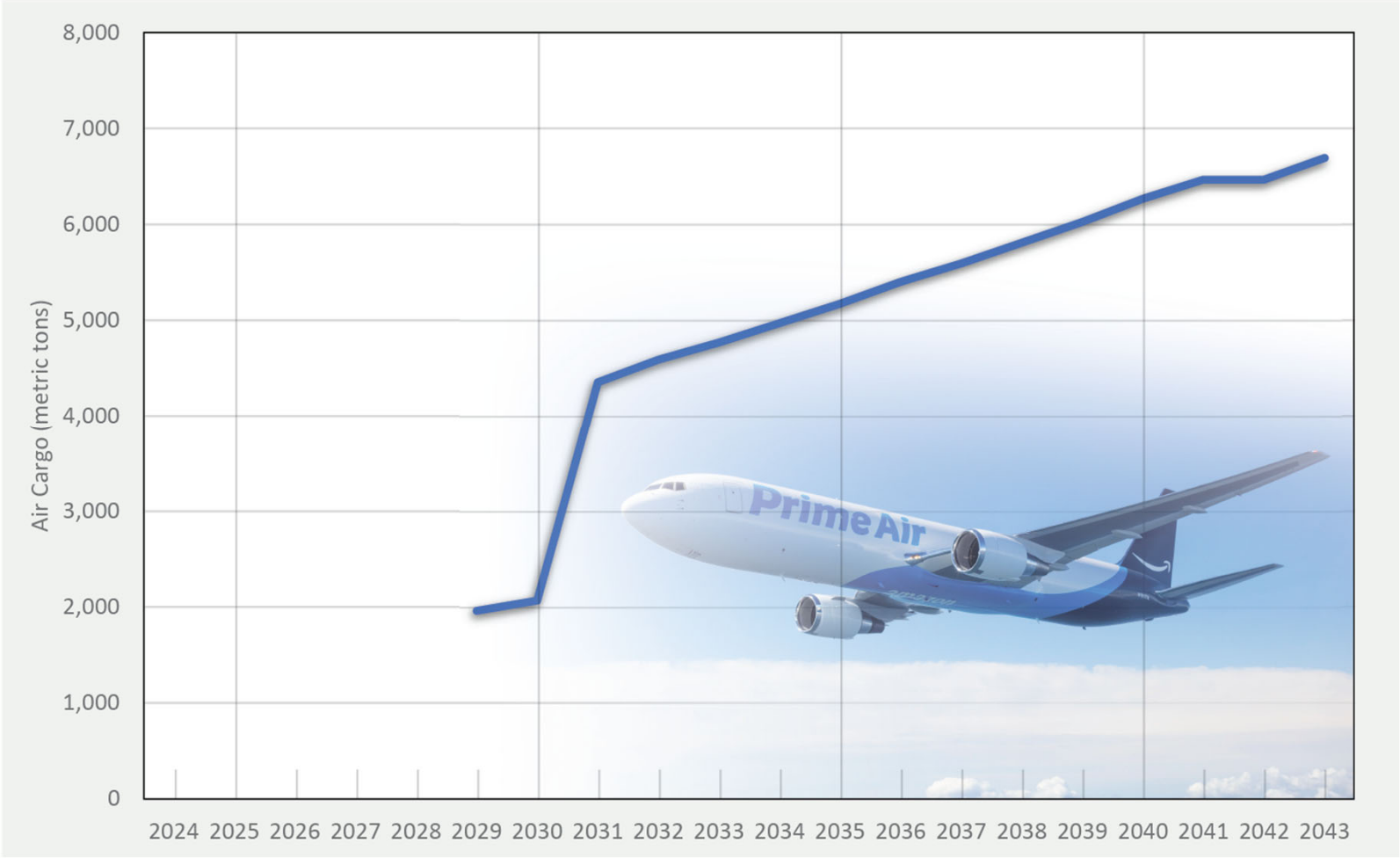
General Cargo Freighter Service



Source: Hubpoint analysis

Figure 2C:

Amazon Air Cargo Forecast



Source: Hubpoint analysis

Figure 2AB:

Air Cargo Forecasts Summary

	2025	2029	2033	2037	2042/2043
Annual Operations					
FedEx Scenario					
Cessna C208B	522	522	0	0	0
Cessna C408	0	0	522	522	522
Amazon Air Scenario					
ATR-72F	[redacted]	626	1,256	1,256	0
Boeing 737-800F		0	0	0	626
General Cargo Freighter Scenario					
Boeing 757-200F	16	312	312	416	416
Air Cargo Tonnage (metric tons)					
FedEx Scenario	310	395	453	502	569
Amazon Air Scenario	[redacted]	1,961	4,768	5,592	6,693
General Cargo Freighter Scenario	166	1,622	2,839	3,245	5,408

Source: Hubpoint analysis

Cargo Scenario Aircraft

FedEx Scenario

Cessna C208B
Cessna C408

General Cargo Scenario

Boeing 757-200F

Amazon Air Scenario

ATR 72-600F
Boeing 737-800F

Images courtesy of flightaware.com

Questions?

NEXT STEPS

Public Information Workshop TONIGHT

Incorporation of Comments/Feedback

Ch3 – Facility Requirements

Ch4 – Development Alternatives

[next meeting: June/July]

THANK YOU!